

# Gasoline Engine and Engine Parts Manufacturing: 2002

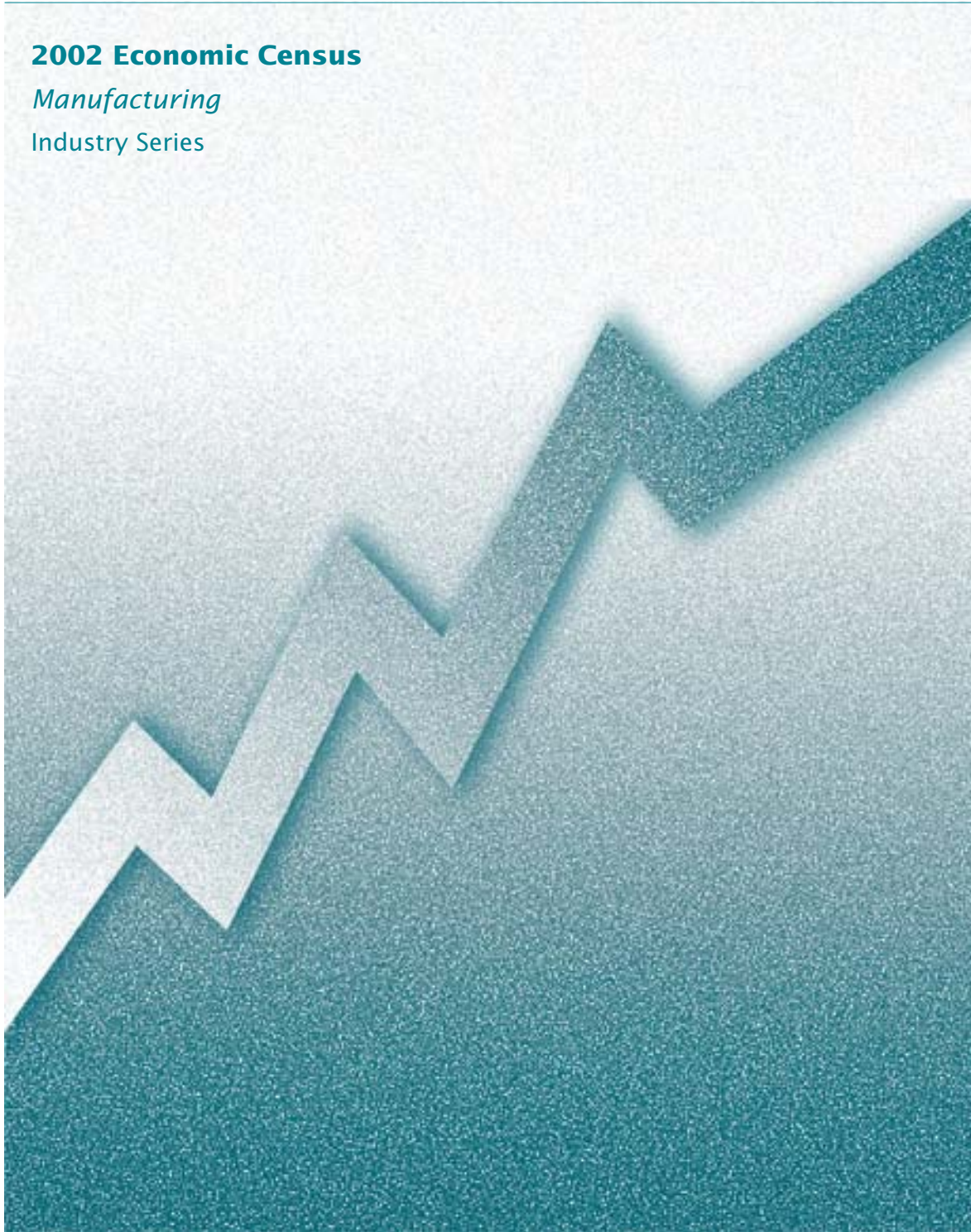
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## 2002 Economic Census

*Manufacturing*

Industry Series



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U.S. Department of Commerce  
Economics and Statistics Administration  
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-- Not applicable for this report.

**Table 1. Historical Statistics for the Industry: 2002 and Earlier Years**

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year <sup>1</sup>	Com- panies <sup>2</sup>	All estab- lish- ments <sup>3</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number <sup>4</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
336312, Gasoline engine and engine parts manufacturing .....	2002.. 835	918	86 960	4 278 207	71 834	129 218	3 357 840	10 916 158	21 992 147	32 816 102	'1 176 495
	2001.. N	N	77 628	3 905 333	64 197	131 811	3 076 029	9 103 672	18 605 412	27 844 970	1 411 761
	2000.. N	N	78 600	3 952 312	64 633	138 105	3 114 287	9 743 298	18 455 258	28 176 610	1 219 965
	1999.. N	N	80 209	3 991 435	65 853	142 151	3 141 900	9 714 054	18 560 105	28 286 717	1 267 061
	1998.. N	N	80 887	3 505 457	65 503	134 201	2 657 834	9 004 079	17 515 882	26 485 059	1 599 164
	1997.. 810	878	80 582	3 520 678	65 409	136 737	2 687 836	8 009 636	17 721 446	25 786 654	1 782 261

<sup>1</sup>Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

<sup>2</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>3</sup>Includes establishments with payroll at any time during the year.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 2. Industry Statistics for Selected States: 2002**

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>3</sup>	Hours (1,000)	Wages (\$1,000)				
<b>336312, Gasoline engine and engine parts manufacturing</b>												
United States .....	—	918	264	86 960	4 278 207	71 834	129 218	3 357 840	10 916 158	21 992 147	32 816 102	1 176 495
Arkansas .....	—	13	7	1 130	28 826	736	1 702	18 163	103 506	145 286	248 534	8 700
California .....	4	140	29	2 814	113 048	2 057	3 557	72 401	230 976	255 198	478 834	30 438
Connecticut .....	1	10	4	904	33 382	687	1 440	22 793	83 721	132 304	214 835	5 398
Florida .....	6	34	6	684	25 563	523	635	13 342	59 390	100 711	161 479	3 578
Georgia .....	—	22	10	1 835	62 339	1 233	1 332	38 147	118 826	216 539	336 824	14 547
Illinois .....	1	33	11	1 457	53 653	1 059	2 153	35 071	227 330	220 480	435 883	7 015
Indiana .....	—	36	21	6 830	270 454	5 169	10 355	180 090	771 091	1 417 716	2 191 294	63 008
Kansas .....	1	8	1	197	5 346	144	277	3 668	9 728	19 445	29 232	273
Kentucky .....	—	15	5	1 789	70 882	1 211	2 148	50 616	61 815	544 469	603 604	22 732
Michigan .....	—	109	63	30 982	1 855 443	26 789	51 288	1 560 100	4 502 055	8 612 116	13 079 678	366 711
New York .....	—	40	11	7 439	428 524	6 458	12 662	365 558	1 567 090	2 196 682	3 747 567	225 169
North Carolina .....	1	32	12	2 000	83 252	1 616	3 343	58 217	264 014	173 178	433 687	16 189
Ohio .....	—	40	17	15 150	589 223	13 439	16 807	470 147	1 046 877	4 828 465	5 865 600	228 999
South Carolina .....	—	13	8	2 748	129 415	2 090	4 226	87 399	457 015	494 925	955 385	36 387
Texas .....	8	45	8	1 400	66 217	1 189	2 339	47 181	131 885	378 687	513 637	20 850
Virginia .....	—	19	7	1 821	83 158	1 359	2 928	49 887	196 292	136 988	337 107	16 375
Washington .....	2	22	4	284	9 870	191	318	5 840	14 756	26 618	40 550	1 017

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

# Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
<b>336312, Gasoline engine and engine parts manufacturing</b>	
Companies <sup>1</sup> .....	number.. 835
All establishments <sup>2</sup> .....	number.. 918
Establishments with 1 to 19 employees .....	number.. 654
Establishments with 20 to 99 employees .....	number.. 135
Establishments with 100 employees or more .....	number.. 129
All employees <sup>3</sup> .....	number.. 86 960
Total compensation .....	\$1,000.. 5 794 534
Annual payroll .....	\$1,000.. 4 278 207
Total fringe benefits .....	\$1,000.. 1 516 327
Production workers, average for year .....	number.. 71 834
Production workers on March 12 .....	number.. 71 532
Production workers on May 12 .....	number.. 72 241
Production workers on August 12 .....	number.. 71 571
Production workers on November 12 .....	number.. 71 946
Production worker hours .....	1,000.. 129 218
Production worker wages .....	\$1,000.. 3 357 840
Total cost of materials .....	\$1,000.. 21 992 147
Materials, parts, containers, packaging, etc., used .....	\$1,000.. 20 686 795
Resales .....	\$1,000.. 925 041
Purchased fuels .....	\$1,000.. 58 923
Purchased electricity .....	\$1,000.. 196 793
Contract work .....	\$1,000.. 124 595
Quantity of electricity purchased for heat and power .....	1,000 kWh.. 4 202 178
Quantity of electricity generated less sold for heat and power .....	1,000 kWh.. S
Total value of shipments .....	\$1,000.. 32 816 102
Primary products value of shipments .....	\$1,000.. 29 174 555
Secondary products value of shipments .....	\$1,000.. 2 550 951
Total miscellaneous receipts .....	\$1,000.. 1 090 596
Value of resales .....	\$1,000.. 985 518
Contract receipts .....	\$1,000.. 6 157
Other miscellaneous receipts .....	\$1,000.. 98 921
Primary products specialization ratio .....	percent.. 92
Value of primary products shipments made in all industries .....	\$1,000.. 31 259 870
Value of primary products shipments made in this industry .....	\$1,000.. 29 174 555
Value of primary products shipments made in other industries .....	\$1,000.. 2 085 315
Coverage ratio .....	percent.. 93
Value added .....	\$1,000.. 10 916 158
Total inventories, beginning of year .....	\$1,000.. 1 914 042
Finished goods inventories .....	\$1,000.. 385 419
Work-in-process inventories .....	\$1,000.. 593 926
Materials and supplies inventories .....	\$1,000.. 934 697
Total inventories, end of year .....	\$1,000.. 2 045 354
Finished goods inventories .....	\$1,000.. 405 481
Work-in-process inventories .....	\$1,000.. 666 067
Materials and supplies inventories .....	\$1,000.. 973 806
Gross value of depreciable assets (acquisition costs) at beginning of year .....	\$1,000.. '17 818 267
Total capital expenditures (new and used) .....	\$1,000.. '1 176 495
Buildings and other structures (new and used) .....	\$1,000.. '91 846
Machinery and equipment (new and used) .....	\$1,000.. '1 084 649
Automobiles, trucks, etc., for highway use .....	\$1,000.. '8 858
Computers and peripheral data processing equipment .....	\$1,000.. '25 752
All other expenditures for machinery and equipment .....	\$1,000.. '1 050 039
Total retirements .....	\$1,000.. '795 441
Gross value of depreciable assets at end of year .....	\$1,000.. '18 199 321
Depreciation charges during year .....	\$1,000.. '1 250 999
Total rental payments .....	\$1,000.. 123 656
Buildings and other structures .....	\$1,000.. 50 115
Machinery and equipment .....	\$1,000.. 73 541
Total other expenses <sup>4</sup> .....	\$1,000.. 1 080 883
Response coverage ratio <sup>5</sup> .....	percent.. 87
Repair and maintenance services of buildings and/or machinery <sup>4</sup> .....	\$1,000.. 233 099
Communications services <sup>4</sup> .....	\$1,000.. 15 002
Legal services <sup>4</sup> .....	\$1,000.. 7 633
Accounting, auditing, and bookkeeping services <sup>4</sup> .....	\$1,000.. 4 132
Advertising and promotional services <sup>4</sup> .....	\$1,000.. 23 611
Expensed computer hardware and supplies and purchased computer services <sup>4</sup> .....	\$1,000.. 10 887
Refuse removal (including hazardous waste) services <sup>4</sup> .....	\$1,000.. 14 372
Management consulting and administrative services <sup>4</sup> .....	\$1,000.. 43 113
Taxes and license fees <sup>4</sup> .....	\$1,000.. 68 891
All other expenses <sup>4</sup> .....	\$1,000.. 660 145

<sup>1</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

<sup>4</sup>Based on 2002 Annual Survey of Manufactures (ASM) sample data.

<sup>5</sup>A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 4. Industry Statistics by Employment Size: 2002**

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E <sup>1</sup>	All establishments <sup>2</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>3</sup>	Hours (1,000)	Wages (\$1,000)				
336312, Gasoline engine and engine parts manufacturing											
All establishments .....	—	918	86 960	4 278 207	71 834	129 218	3 357 840	10 916 158	21 992 147	32 816 102	'1 176 495
Establishments with—											
1 to 4 employees .....	9	515	830	44 644	684	1 239	37 162	90 950	177 461	268 441	'7 720
5 to 9 employees .....	8	91	587	31 576	466	756	26 929	55 969	106 715	164 716	'5 202
10 to 19 employees .....	6	48	671	29 910	548	867	23 494	53 300	81 979	136 303	'4 100
20 to 49 employees .....	2	80	2 519	104 073	1 932	3 183	73 277	200 379	606 142	816 806	'20 864
50 to 99 employees .....	3	55	3 865	169 049	2 787	4 829	110 965	422 078	527 521	943 710	'31 276
100 to 249 employees .....	—	53	8 423	297 670	6 592	11 531	205 793	794 759	1 023 759	1 816 567	'79 325
250 to 499 employees .....	—	35	11 670	450 395	9 341	19 420	311 000	1 301 961	1 362 536	2 659 098	'152 182
500 to 999 employees .....	—	20	14 140	674 907	11 179	22 721	491 938	2 075 297	3 569 833	5 674 859	'190 950
1,000 to 2,499 employees .....	—	14	20 857	1 236 473	17 374	33 990	1 026 809	3 661 525	6 859 321	10 405 311	260 833
2,500 employees or more .....	—	7	23 398	1 239 510	20 931	30 682	1 050 473	2 259 940	7 676 880	9 930 291	424 043
Administrative records <sup>4</sup> .....	9	528	1 073	64 892	887	1 693	54 904	135 106	265 238	400 333	'11 555

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

<sup>4</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 5. Industry Statistics by Primary Product Class Specialization: 2002**

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments <sup>1</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				
336312	Gasoline engine and engine parts manufacturing .....	918	86 960	4 278 207	71 834	129 218	3 357 840	10 916 158	21 992 147	32 816 102	'1 176 495
3363121	Gasoline engines and gasoline engine parts for motor vehicles, new.....	204	78 303	3 923 999	64 976	117 711	3 095 806	10 240 886	20 823 768	30 966 145	'1 121 292
3363123	Gasoline engines and engine parts for motor vehicles, rebuilt .....	48	4 473	154 065	3 420	6 632	101 344	291 946	543 420	834 362	'20 961

<sup>1</sup>Includes establishments with payroll at any time during the year.

<sup>2</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 6a. Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
336312	Gasoline engine and engine parts manufacturing .....	2002.. N 1997.. N	X X	X X	31 259 870 25 382 008
3363121	Gasoline engines and gasoline engine parts for motor vehicles, new .....	2002.. N 1997.. N	X X	X X	29 669 569 24 579 425
33631211	Gasoline engines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard accessories), for motor vehicles .....	2002.. N 1997.. N	X X	X X	20 077 993 15 120 065
3363121101	Gasoline engines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard accessories), for motor vehicles .....	2002.. 25 1997.. 28	X X	X X	20 077 993 15 120 065
33631212	Gasoline engine fuel injection systems, new, for motor vehicles .....	2002.. N 1997.. N	X X	X X	1 515 386 2 409 386
3363121224	Gasoline engine fuel injection systems, new, for motor vehicles .....	2002.. 23 1997.. 26	X X	X X	1 515 386 2 409 386
33631213	Gasoline engine fuel and water pump assemblies (excluding kits), new, for motor vehicles .....	2002.. N 1997.. N	X X	X X	1 186 615 1 268 546
3363121351	Gasoline engine fuel pump assemblies (excluding kits), new, for motor vehicles .....	2002.. 17 1997.. 12	X X	X X	871 560 1 021 940
3363121354	Gasoline engine water pump assemblies (excluding kits), new, for motor vehicles .....	2002.. 11 1997.. 14	X X	X X	315 055 246 606
33631214	Gasoline engine cooling fans and thermostats, new, for motor vehicles .....	2002.. N 1997.. N	X X	X X	744 532 378 324
3363121457	Gasoline engine cooling fans (including hubs and clutches), new, for motor vehicles .....	2002.. 13 1997.. 11	X X	X X	D 341 303
3363121467	Gasoline engine thermostats (engine cooling system), new, for motor vehicles .....	2002.. 7 1997.. 4	X X	X X	D 37 021
33631215	All other gasoline engines and gasoline engine parts for motor vehicles, new .....	2002.. N 1997.. N	X X	X X	6 002 323 5 228 277
3363121504	Gasoline engine intake manifolds, new, for motor vehicles .....	2002.. 15 1997.. 17	X X	X X	937 762 358 342
3363121507	Gasoline engine exhaust manifolds, new, for motor vehicles .....	2002.. 10 1997.. 21	X X	X X	137 299 230 889
3363121511	Gasoline engine crankshafts, new, for motor vehicles .....	2002.. 8 1997.. 12	X X	X X	55 575 184 372
3363121514	Gasoline engine camshafts, new, for motor vehicles .....	2002.. 13 1997.. 13	X X	X X	221 904 408 035
3363121517	Gasoline engine rocker arms and parts, new, for motor vehicles .....	2002.. 10 1997.. 15	X X	X X	188 617 128 343
3363121521	Gasoline engine valve guides, seats, and tappets, new, for motor vehicles .....	2002.. 14 1997.. 19	X X	X X	404 679 640 040
3363121527	Gasoline engine flywheels and flexplates, new, for motor vehicles .....	2002.. 9 1997.. 10	X X	X X	D 48 771
3363121531	Gasoline engine timing gears, sprockets, and chains, new, for motor vehicles .....	2002.. 10 1997.. 15	X X	X X	D 216 620
3363121534	Gasoline engine main engine bearings (halves), new, for motor vehicles .....	2002.. 4 1997.. 8	X X	X X	71 325 110 413
3363121537	Gasoline engine connecting rod, engine bearings (halves), new, for motor vehicles .....	2002.. 12 1997.. 11	X X	X X	192 686 119 189
3363121541	Other gasoline engine bearings (halves) (balance shaft, camshaft, etc.), new, for motor vehicles .....	2002.. 12 1997.. 7	X X	X X	295 481 91 733
3363121544	Gasoline engine oil pumps, new, for motor vehicles .....	2002.. 12 1997.. 13	X X	X X	249 410 168 752
3363121571	Gasoline engine PCV (positive crankcase ventilation) valves, new, for motor vehicles .....	2002.. 4 1997.. 6	X X	X X	17 301 15 260
3363121574	All other parts and accessories for gasoline engines, new, for motor vehicles .....	2002.. 100 1997.. 123	X X	X X	2 681 892 2 507 518
3363121Y	Gasoline engines and gasoline engine parts for motor vehicles, new, nsk .....	2002.. N 1997.. N	X X	X X	142 720 174 827
3363121YVV	Gasoline engines and gasoline engine parts for motor vehicles, new, nsk .....	2002.. N 1997.. N	X X	X X	142 720 174 827
3363123	Gasoline engines and engine parts for motor vehicles, rebuilt .....	2002.. N 1997.. N	X X	X X	656 718 420 049
33631231	Gasoline engines and engine parts for motor vehicles, rebuilt .....	2002.. N 1997.. N	X X	X X	419 916 420 049
3363123101	Motor vehicle fuel pumps, rebuilt .....	2002.. 6 1997.. 5	X X	X X	3 632 5 576
3363123104	Motor vehicle water pumps, rebuilt .....	2002.. 6 1997.. 30	X X	X X	17 658 76 132
3363123107	Car and light truck gasoline engines, rebuilt .....	2002.. 35 1997.. 44	X X	X X	270 091 296 045
3363123111	Heavy truck and bus gasoline engines, rebuilt .....	2002.. 4 1997.. 4	X X	X X	28 666 5 897
3363123121	Other rebuilt engine parts and components .....	2002.. 21 1997.. 22	X X	X X	99 869 36 399

See footnotes at end of table.



Table 6a. **Products Statistics: 2002 and 1997—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
336312	Gasoline engine and engine parts manufacturing—Con.				
3363123	Gasoline engines and engine parts for motor vehicles, rebuilt—Con.				
3363123Y	Gasoline engines and engine parts for motor vehicles, rebuilt, nsk .....	2002.. N	X	X	236 802
		1997.. N	X	X	—
3363123YVV	Gasoline engines and engine parts for motor vehicles, rebuilt, nsk .....	2002.. N	X	X	236 802
		1997.. N	X	X	—
336312W	Gasoline engine and engine parts manufacturing, nsk, total .....	2002.. N	X	X	933 583
		1997.. N	X	X	382 534
336312WY	Gasoline engine and engine parts manufacturing, nsk, total .....	2002.. N	X	X	933 583
		1997.. N	X	X	382 534
336312WYWW	Gasoline engine and engine parts manufacturing, nsk, for nonadministrative-record establishments .....	2002.. N	X	X	554 520
		1997.. N	X	X	156 068
336312WYWY	Gasoline engine and engine parts manufacturing, nsk, for administrative-record establishments .....	2002.. N	X	X	379 063
		1997.. N	X	X	226 466

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 6b. Product Class Shipments for Selected States: 2002 and 1997**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3363121	Gasoline engines and gasoline engine parts for motor vehicles, new	
	United States .....	2002.. 29 669 569
		1997.. 24 579 425
	Arkansas .....	2002.. 242 765
		1997.. 175 767
	California .....	2002.. 303 281
		1997.. 264 225
	Connecticut .....	2002.. 186 988
		1997.. 231 916
	Florida .....	2002.. 79 168
		1997.. 126 021
	Georgia .....	2002.. 245 655
		1997.. 48 445
	Illinois .....	2002.. 338 905
		1997.. 368 675
	Indiana .....	2002.. 1 395 071
		1997.. 1 292 535
	Kentucky .....	2002.. 503 890
		1997.. N
	Michigan .....	2002.. 12 842 045
		1997.. 9 897 201
	New York .....	2002.. 3 752 410
		1997.. N
	North Carolina .....	2002.. 329 879
		1997.. 305 574
	Ohio .....	2002.. 5 841 952
		1997.. 5 194 629
	South Carolina .....	2002.. 786 012
		1997.. 628 971
	Virginia .....	2002.. 295 456
		1997.. N
3363123	Gasoline engines and engine parts for motor vehicles, rebuilt	
	United States .....	2002.. 656 718
		1997.. 420 049
	California .....	2002.. 21 059
		1997.. 37 539
	Kentucky .....	2002.. 29 026
		1997.. N
	Washington .....	2002.. 17 008
		1997.. 13 692

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

**Table 7. Materials Consumed by Kind: 2002 and 1997**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
336312	Gasoline engine and engine parts manufacturing		
00900001	Total materials .....2002..	X	20 700 227
	.....1997..	X	16 897 131
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	3 852 001
	.....1997..	X	2 968 701
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	1 365 845
	.....1997..	X	941 482
33152003	Other nonferrous metal castings, rough and semifinished (including aluminum and aluminum-base alloy) .....2002..	X	56 091
	.....1997..	X	D
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	153 809
	.....1997..	X	268 524
33120016	Steel sheet and strip (including tinplate) .....2002..	X	38 539
	.....1997..	X	N
33120033	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	110 972
	.....1997..	X	69 640
33142111	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	25 436
	.....1997..	X	21 405
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	116 279
	.....1997..	X	N
33100082	Other nonferrous metal shapes and forms (excluding aluminum and aluminum-base alloy and copper and copper-base alloy castings, forgings, and fabricated metal products) .....2002..	X	17 799
	.....1997..	X	N
33299101	Ball and roller bearings (mounted or unmounted) .....2002..	X	192 527
	.....1997..	X	N
32610007	Fabricated plastics products (excluding gaskets, hoses, and belting) .....2002..	X	234 183
	.....1997..	X	N
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes .....2002..	X	104 421
	.....1997..	X	36 449
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....2002..	X	125 810
	.....1997..	X	43 125
32600017	Fabricated rubber products (excluding tires, tubes, hose, belting, and gaskets) .....2002..	X	13 967
	.....1997..	X	73 678
32622001	Rubber and plastics hose and belting .....2002..	X	77 642
	.....1997..	X	87 470
32500023	Ceramic raw materials (including powders, chemicals, and fibers), excluding refractory uses .....2002..	X	D
	.....1997..	X	43 091
32700035	Ceramic and ceramic composite parts, components, and accessories .....2002..	X	D
	.....1997..	X	19 277
33999103	Gaskets (all types), and packing and sealing devices .....2002..	X	210 364
	.....1997..	X	83 677
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	D
	.....1997..	X	N
32552002	Glues and adhesives .....2002..	X	5 551
	.....1997..	X	N
00190003	Flexible packaging materials .....2002..	X	11 968
	.....1997..	X	5 090
32220015	Paper and paperboard containers .....2002..	X	44 930
	.....1997..	X	29 243
33632201	Spark plugs for internal combustion engines .....2002..	X	65 934
	.....1997..	X	N
33632202	Generators for internal combustion engines .....2002..	X	D
	.....1997..	X	N
33632203	Starting motors for internal combustion engines .....2002..	X	19 559
	.....1997..	X	N
33632204	Distributors for internal combustion engines .....2002..	X	14 501
	.....1997..	X	N
33632205	Ignition coils for internal combustion engines .....2002..	X	104 786
	.....1997..	X	N
33632206	Ignition harness and cable sets for internal combustion engines .....2002..	X	53 710
	.....1997..	X	N
33632219	All other engine electrical equipment for internal combustion engines .....2002..	X	140 670
	.....1997..	X	N
33632207	Magnetos, magneto-dynamos, and magnetic flywheels for internal combustion engines .....2002..	X	D
	.....1997..	X	N
33361813	Turbochargers .....2002..	X	D
	.....1997..	X	N
33361815	Injection fuel pumps .....2002..	X	115 797
	.....1997..	X	N
33361817	Machined engine blocks .....2002..	X	D
	.....1997..	X	N
33441500	Resistors for electronic circuitry .....2002..	X	D
	.....1997..	X	N
33441400	Capacitors for electronic circuitry .....2002..	X	D
	.....1997..	X	N
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry .....2002..	X	26 631
	.....1997..	X	N
00190033	Used engine electrical equipment for rebuilding, or to be used in rebuilding (starting motors, generators, etc.) .....2002..	X	D
	.....1997..	X	N
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes) .....2002..	X	507 732
	.....1997..	X	N
00999826	Core parts purchased for use in remanufacturing and rebuilding .....2002..	X	442 895
	.....1997..	X	71 632
33441200	Printed circuit boards (without inserted components) for electronic circuitry .....2002..	X	14 968
	.....1997..	X	N
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	293 470
	.....1997..	X	530 646

See footnotes at end of table.

**Table 7. Materials Consumed by Kind: 2002 and 1997—Con.**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
336312	Gasoline engine and engine parts manufacturing—Con.		
33200019	Other fabricated metal products (excluding fluid power, forgings, automotive stamping and bolts, nuts, screws, rivets, washers, and screw machine products) .....2002..	X	1 595 695
	.....1997..	X	2 378 644
33210000	Forgings .....2002..	X	239 599
	.....1997..	X	N
331000A1	Insulated wire and cable (excluding magnet wire) .....2002..	X	D
	.....1997..	X	N
33100097	Magnet wire .....2002..	X	2 155
	.....1997..	X	N
33361200	Mechanical speed changers, gears, and industrial high-speed drives .....2002..	X	D
	.....1997..	X	N
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic) .....2002..	X	963 761
	.....1997..	X	D
33291207	Fluid power valves (hydraulic and pneumatic) .....2002..	X	408 306
	.....1997..	X	D
33399501	Fluid power cylinders and rotary actuators (hydraulic and pneumatic) .....2002..	X	D
	.....1997..	X	D
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic) .....2002..	X	77 075
	.....1997..	X	D
33399901	Fluid power filters (hydraulic and pneumatic) .....2002..	X	68 456
	.....1997..	X	D
00190087	Other transportation related fluid power products, hydraulic and pneumatic .....2002..	X	69 187
	.....1997..	X	N
33637000	Automotive stampings (including body parts, hubcaps, fenders, etc.) .....2002..	X	415 716
	.....1997..	X	345 968
33593101	Current-carrying wiring devices .....2002..	X	50 437
	.....1997..	X	N
32500046	Other chemicals and allied products .....2002..	X	33 252
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	6 745 515
	.....1997..	X	4 287 428
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	965 247
	.....1997..	X	2 700 239

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

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